

Notice of Allowability

Application No.

10/521,353

Examiner

Pia F. Tibbits

Applicant(s)

COLOMBO ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the election filed 2/27/2006.
2. ☒ The allowed claim(s) is/are 43-63.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date herein.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1/12/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

This Office action is in answer to the election filed 2/27/2006.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. The application has been amended as follows:

In the drawings:

Conventional names to be shown in fig.11, e.g. battery, ignition system, alternator, electric load, etc. for the elements shown with non-conventional symbols. Formal drawings to be submitted.

In the specification:

The abstract to be amended to reflect allowable subject matter: the control circuit 15 further comprises means for detecting ambient temperature TEMP, means for detecting time of inactivity of the motor E_{OFF} , means for calculating a mean value of voltage $V_{B_{AVG}}$ of the battery, the electrical quantity $V_{B_{AVG}}$ is the mean value of voltage of the battery BA, the threshold value V_{TH} is variable in function of the ambient temperature TEMP and the time of inactivity of the motor E_{OFF} , the actuation means comprise a bistable electromagnetic arrangement 20, 21, 22 capable of passing from a first stable condition to a second stable condition following a pulse generated by the control means.

Allowable Subject Matter

3. Claims 43-63 are allowed.

With regard to claims 43-63: none of the references of record prior to applicant's filing date discloses, teaches, or suggests a protection system of a battery of a vehicle, the vehicle having a motor, an ignition system MA of the motor, a battery BA used by the ignition system MA in order to start the motor, an alternator AL actuated by the motor in order to recharge the battery BA and at least one electric load CS supplied by the battery BA, the protection system comprising, *inter alia*, the control circuit

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15 further comprises means for detecting ambient temperature TEMP, means for detecting time of inactivity of the motor E_{OFF} , means for calculating a mean value of voltage VB_{AVG} of the battery, the electrical quantity VB_{AVG} is the mean value of voltage of the battery BA, the threshold value V_{TH} is variable in function of the ambient temperature TEMP and the time of inactivity of the motor E_{OFF} , the actuation means comprise a bistable electromagnetic arrangement 20, 21, 22 capable of passing from a first stable condition to a second stable condition following a pulse generated by the control means.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Pia Tibbits whose telephone number is 571-272-2086. If unavailable, contact the Supervisory Patent Examiner Karl Easthom whose telephone number is 571-272-1989. The Technology Center Fax number is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PFT

April 10, 2006

Pia Tibbits

Primary Patent Examiner

